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APPLICATION NO.	F	ILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
09/902,622		07/12/2001	Jun Koyama	740756-2339	3008	
22204	7590	02/26/2002				
NIXON PE		•	EXAMINER			
8180 GREE SUITE 800			BLACKMAN, ANTHONY J			
MCLEAN, VA 22102				ART UNIT	PAPER NUMBER	
				2672	3	
				DATE MAILED: 02/26/2002		

Please find below and/or attached an Office communication concerning this application or proceeding.





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Office Action Summary

Application No. 09/902,622

Applicant(s)

KOYAMA et al

Examiner

Anthony Blackman

Art Unit 2672

	The MAILING DATE of this communication appear	irs on the cover s	heet with the corres	
A SHO THE N - Exten aft - If the be - If NO coi - Failuri	for Reply ORTENED STATUTORY PERIOD FOR REPLY IS SI MAILING DATE OF THIS COMMUNICATION. Insigns of time may be available under the provisions of 37 Iter SIX (6) MONTHS from the mailing date of this communication of timely. Iter provides the provision of 37 Iter six (6) MONTHS from the mailing date of this communication of timely. Iter period for reply specified above is less than thirty (30) date of the provided for reply is specified above, the maximum statutor of the period for reply will, reply received by the Office later than three months after the period patent term adjustment. See 37 CFR 1.704(b).	7 CFR 1.136 (a). In unication. lays, a reply within to pry period will apply, by statute, cause	n no event, however, the statutory minimum and will expire SIX (6) the application to bec	may a reply be timely filed m of thirty (30) days will 6) MONTHS from the mailing date of this come ABANDONED (35 U.S.C. § 133).
Status 1)⊠	Responsive to communication(s) filed on Sep 27,	', 2001		
2a) □	This action is FINAL . 2b) 💢 This a	action is non-fina	al.	
	Since this application is in condition for allowance closed in accordance with the practice under Exp			
Disposit	ition of Claims			
4) 💢	Claim(s) <u>1-32</u>		is	s/are pending in the application.
4	4a) Of the above, claim(s)		is	are withdrawn from consideratio
5)💢	Claim(s) 29-32			is/are allowed.
6) 💢	Claim(s) <u>1-28</u>			is/are rejected.
7) 🗆	Claim(s)			is/are objected to.
8) 🗆	Claims		_ are subject to res	striction and/or election requiremen
Applica	ntion Papers			
	The specification is objected to by the Examiner.			
	The drawing(s) filed on is,			_
	The proposed drawing correction filed on		is: a approved	d bil disapproved.
12)	The oath or declaration is objected to by the Exa	aminer.		
13)⊠ a) ⊠	under 35 U.S.C. § 119 Acknowledgement is made of a claim for foreign All b) □ Some* c) □ None of: 1. ☒ Certified copies of the priority documents h 2. □ Certified copies of the priority documents h 3. □ Copies of the certified copies of the priority application from the International Bu ee the attached detailed Office action for a list of	have been receive have been receive y documents hav ureau (PCT Rule	ved. ved in Application N ve been received in 17.2(a)).	No
14)	Acknowledgement is made of a claim for domes			/(e).
		10 p. 10.11.	00 0.0.2.	(0).
Attachme	ent(s) otice of References Cited (PTO-892)	121 ☐ Interview	Summary (PTO-413) Papel	or No.(g)
	otice of Praftsperson's Patent Drawing Review (PTO-948)	_	Informal Patent Application	
	formation Disclosure Statement(s) (PTO-1449) Paper No(s). 2	20) Other:		

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DETAILED ACTION

Claim Rejections - 35 USC § 103

- 1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 2. Claims 1-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art in view of SANO, US Patent No. 5,376,926.
- 3. Consider claims 1-28. Figure 9 (prior art), teaches active matrix type display means, plurality of switching elements, source driver circuit, gate driver circuit, signal lines, and analog buffer circuits displayed in prior art of figure 9, however, does not disclose buffer circuitry means comprising parallel TFTs.

Sano discloses buffer circuitry means comprising parallel TFTs (Figures 3-4, column 1, lines 9-15, and column 3, lines 4-45). It would have been obvious to one skilled in the art at the time of the invention to combine the prior art (Figure 9) active matrix type device's source driver circuit with buffer means containing parallel TFTs of Sano in order to lower the manufacturing costs and reduce power consumption (column 1, lines 56-57) by placing driver circuitry on one chip. Additionally, a smaller amount of space would be utilized to make the driving circuit more

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compact. Further, the output impedance of the circuit is reduced due to the buffer circuitry arrangement.

4. Claims 1-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edwards, US Patent No. 5,335,023 in view of SANO, US Patent No. 5,376,926. Edwards teaches a means of matrix display apparatus (as to claims 1-28 refer to figure 1, element 10), row and column driver circuitry (Figure 1, elements 20 and 22, column 1, lines 5-23, 50-56, column 3, lines 19-39), however, does not disclose buffer circuitry means comprising parallel TFTs. Sano discloses buffer circuitry means comprising parallel TFTs (Figures 3-4, column 1, lines 9-15, and column 3, lines 4-45). It would have been obvious to one skilled in the art at the time of the invention to combine the buffer means containing parallel TFTs of Sano with the matrix display apparatus of Edwards in order to lower the manufacturing costs and reduce power consumption (column 1, lines 56-57) by placing driver circuitry on one chip. Additionally, a smaller amount of space would be utilized to make the driving circuit more compact. Further, the output impedance of the circuit is reduced due to the buffer circuitry arrangement.

Allowable Subject Matter

5. The following is an examiner's statement of reasons for allowance for claim 29: none of the prior art teaches or suggests (please note italicized text), an active matrix device, plurality of pixels, plurality of switching elements, circuit driver, plurality of buffer circuits (all known);

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wherein each of the buffer circuits is arranged obliquely with respect to said direction so that a portion of at least one of the buffer circuits is positioned in a same line along said first direction as a pórtion of at least another one of the buffer circuits referring to embodiments four and five and figures four and five, respectively of the instant application.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Blackman whose telephone number is (703) 305-0833. The examiner can normally be reached on Monday through Friday from 8 a.m. to 4 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi, can be reached on (703) 305-4713.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for formal communications intended for entry) Or:

(703) 746-5731 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

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Hand-delivered responses should be brought to Crystal Park 11, 2121 Crystal Drive, Arlington.

VA.,

Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

JEFFERY BRIER
PRIMARY EXAMINER

Patent Examiner

Anthony J. Blackman

2/21/2002